

Fish of the Week: Alaska Blackfish January 18, 2021

[music]

Hey to all you fish enthusiasts out there. Whether you're an avid angler or just curious about fish, we'd like to welcome you to Fish of the Week! I'm Katrina Liebich with the U.S. Fish and Wildlife Service in Alaska.

And I'm Guy Eroh, just a regular ol' piscifile.

It's Monday, January 18, 2021, and we're excited to talk about ALL THE FISH. This week's fish of the week is the blackfish.

Today we've got a guest. We've got Luke Byker with us, a biologist with the Army Corps of Engineers in Anchorage and he knows a little something about blackfish.

So we wanted to welcome like you Luke. We're really excited to talk to you today.

Yeah Katrina thanks for having me.

Ok so I mean what the heck is a blackfish? Can you tell us a little bit more about what do they look like, where do they live?

Sure. They native to interior Alaska all the way out to Bristol Bay and then up into the Arctic. If I were to describe what they look like, it looks like a Burbot, or for those of you in the lower 48 [states] kind of like a bowfin, or a dogfish. But they're only about 8-10 inches long at the most. They have a big, wide flattened mouth. Kind of a mottled almost brindle color on the sides. It's really hard to describe, but they're one of the neatest looking fish out there.

Yeah they're a really neat fish. They are small and mighty in terms of being able to survive some really unique situations.

Yeah for sure. They really specialize in living in bodies of water where often no other species can survive. They have a modified esophagus that can breathe atmospheric oxygen, not unlike a lung. That's kind of their most notable feature.

So they can survive in those seasonal ponds I'm guessing up in the tundra? They can kind of get down into the mud and keep their skin moist and gulp that air?

That's definitely their niche, you know, thriving where nothing else can.

When I was doing a project on them there were some studies I found from Denali National Park, where blackfish were surviving in a pond that was even too toxic for insects to survive in by breathing atmospheric oxygen from muskrat holes. So they're really just amazing little survivors.

You mentioned they use those muskrat push-ups or holes. Can you tell us a little bit more about that and how they do that in the winter?

Sure! Muskrat pushups are those little mounds you see out on swamps in the wintertime. And muskrats have a little house in there not unlike a beaver lodge that they use to get above and below the ice all

Fish of the Week: Alaska Blackfish January 18, 2021

winter. And the blackfish are able to go under those holes and I guess the motion of their fins helps keep it open. And they're able to gulp atmospheric oxygen out of those holes and keep themselves alive through the winter when the oxygen gets depleted under the ice

So I've heard some stories that these fish can actually um...be frozen and come back to life. Is there any truth to that?

I've heard those here and there over the years.

I've read that there's mixed evidence for that. That that was kind of—and again, you guys are both more knowledgeable about this species than I am—but I was reading that there's kind of some stories of that happening, but more scientific trials...they tried freezing the fish.

Yeah that's kind of what I heard is someone had caught some and they ended up thawing out and coming back to life.

I think it boils down to just being kind of a myth. Because there were some stories conducted that showed they'll die when frozen however they're so hardy that they can resuscitate for a while after being frozen. But no, they will eventually die from being frozen solid. There's an actual study that I found that's like ancient, and they froze different body parts of them like in sequence and then tried to bring them back to life and no...they cant. Like they die like everything else. It was an incredibly cruel experiment but it was kind of interesting.

I don't think that would probably pass the current IACUC protocol...that wouldn't get approved I don't think.

There are some fish that have antifreeze in their blood. We know that wood frogs can freeze. There's probably something to be said for their hardiness. I guess what I would say is: when you're catching a fish and you're bringing it out and it's really cold out and you're bringing it above the surface, if you're not planning on keeping it, try not to keep it in the air for very long. And we'll make this point in other episodes too...get them back in the water because dry, cold air, it's not ideal for a lot of species. Maybe the blackfish can handle it a little bit better? But yeah...

[music]

So if folks are going to fish them in the winter how can they take advantage what we've learned about their biology and what we've learned about their behavior?

I fished them with traps for work for a study, but I've seen a lot of the subsistence fishermen out west will basically cut an ice hole it looks like and then put half a funnel trap down in that hole so it fits snugly in that hole and then the blackfish swim up to get the atmospheric oxygen and can't get back out. Not unlike a minnow trap—a funnel trap set in current. You know the blackfish are just attracted to air. And so they'll swim up through that funnel and then they're caught.

And for folks that don't know what a minnow trap is it's kind of like the same thought as a crap pot or a shrimp pot and they swim in and then can't find their way out given the hole and how the trap is set up.

Using traps to catch these fish...now is that something that your average fisherman can go out and do?

Fish of the Week: Alaska Blackfish January 18, 2021

I would call and ask [Alaska Department of] Fish and Game because they are an introduced species on the Kenai, and in the Anchorage Bowl and in the Mat-Su. I would call Fish and Game and ask. It's certainly not a legal way to take sport fish but it may very well be allowable for blackfish.

So is that the only way folks can fish them is through a trap like that or can you do some hook and line during the winter under the ice?

You know their diet is mostly small aquatic insects, mollusks, stuff like that. So I would think a teardrop jig with a single egg would probably work pretty well. You know they only get to 10 inches so you're somewhat limited there but a lot of lakes in the Anchorage Bowl, even the stocked lakes, have them so I would definitely think you could get them on small tear drop jigs.

I've caught them in Little Campbell Lake and I think we were just using a little tiny bit of shrimp. We weren't actually targeting them but they were definitely around and they're a really cool looking beautiful little fish. And they taste pretty good too.

Do they put up a fight at all Katrina?

I mean, they're so small. It's kind of like some of those other little stocked fish. It's fun with kids and if you have a bobber on and some light line and a flexible little rod you're...it's fun. They're a fun fish.

Very cool.

Now I got a quick question, you know, while you're ice fishing for them. A lot of times fish, if there's enough oxygen in the water, of course will be down sort of on the substrate on the bottom of the lake and you've got to drop down to them. It sounds like in some of the habitats that the blackfish are living in: it's low oxygen environments and then they might be hanging out towards the surface. Are you going to want to suspend your bait closer to the surface or are you going to want to get it down a little bit or does it just depend on where you're fishing?

You know naturally they're definitely a benthic species and they spend a lot of their time almost down in the substrate on the bottom. So they're only coming up if there's an oxygen issue in the lake. And if you're fishing in a lake where there's trout and salmon it's probably a good bet that there's enough oxygen so I would fish on the bottom personally on the bottom for sure. But Katrina's fished them more than I have with hook and line so...

Yeah I would say that's a good bet as well.

[music]

Hey there everyone. One thing we want you to always keep in mind no matter where or what you're fishing for is safety. Every week we're going to give you a new tip or two that you can use to stay safe while you're angling. Alaska winters offer numerous opportunities for fishing out on the ice and it's always fun to try out new spots. However, before setting foot on a new lake or river I would recommend talking to either friends or locals who are familiar with the area. Ice thickness often varies on a given body of water for numerous reasons including the presence of springs or currents. Lake outlets or outer bends often have thinner ice than the surrounding waters for these reasons. Therefore it's a good idea

Fish of the Week: Alaska Blackfish January 18, 2021

for anglers new to any destinations to familiarize themselves with local knowledge from the area to stay both safe and dry.

[music and cooking sounds]

Are these fish good to eat? If so, how do you cook them? What do you like to do with them?

You know I know they're a popular subsistence fish in other parts of Alaska. I have never eaten one myself. I've only trapped them for work so I'm going to defer to Katrina.

Yeah so they have a white meat. And they're very small so basically when I eat them I've baked them. I don't know if this is how other folks eat them but I baked them. Basically just took the guts out and put them in a pan with some oil and seasoning and baked them. And it was really odd because they actually kind of curled up when I did that so with the muscle fibers if they've got something different than some of the other species. It was a white meat, not fishy. I think there'd be a couple different ways to do it buy generally with smaller fish the catchable trout or salmon in the Anchorage lakes a lot of times you'll just want to cut the head off and take the guts out and bake 'em whole just because of size. Whereas something like a bigger salmon or a pike you actually fillet it, take the fillets off, and cook those in different ways.

So Katrina you got a couple kids at home I know. How many of these fish do you actually have to catch to make a decent meal for the whole family?

Our daughter was catching most of them and she was three or four at the time and I think we ate maybe five? They're not really big so you could probably eat quite a few before you get filled up.

[music]

So thanks Luke

That was great talking to you....you have a lot of really cool information we really appreciate you joining us today so thanks again.

You bet. Thanks a lot for having me any time I can come on and talk about blackfish is a good day.

SO that's your fish of the week. The Alaska Blackfish. We'd love it if you could get out there and enjoy all the fish!

Do not take this uniquely Alaska species for granted. Go out and get 'em while you can.

Yeah just a really cool unique fish.

[music]

Thanks for listening to Fish of the Week!

My name is Katrina Liebich, and my co-host is Guy Eroh.

Fish of the Week: Alaska Blackfish January 18, 2021

This show is produced by David Hoffman of Citizen Racecar, assisted by Garrett Teidemann and Kelsey Kohrs.

Fish of the Week is a production of the US Fish and Wildlife Service, Alaska Region, Office of External Affairs.

As the Service reflects on 150 years of fisheries conservation, we honor, thank, and celebrate the whole community – individuals, Tribes, the State of Alaska, sister agencies, fish enthusiasts, scientists, and others – who have elevated our understanding and love, as people and professionals, of all the fish.